



US Army Corps
of Engineers
Jacksonville District



Intracoastal Waterway Maintenance Dredging



and the

Placement of Dredge Material on Florida Beaches

Florida Shore and Beach Preservation Association Conference
September 2004

Intracoastal Waterway – IWW/AIWW



- AIWW – Authorized in 1914, Norfolk to St. Johns River: 90 – 150 feet wide, 12 feet deep; 22 miles in SAJ District
- IWW - Authorized in 1927, St. Johns River to Miami: Generally 125 feet wide, 8 to 12 feet deep; 349 miles in Length

Florida Inland Navigation District - FIND

- Project sponsor for IWW was responsible for obtaining Rights-of-Way and disposal areas for construction and maintenance
- Creation of the Florida Inland Navigation District in 1927
- In 1931 the State charged FIND with the items of cooperation for the IWW, and allowed a taxing rate of 1 mill
- In 1939 FIND is charged with collecting statistical data on commerce to be provided to the United States to be used in deepening and widening justification
- FIND consists of the eleven counties from Dade to Duval; in 1941 they were charged with items of cooperation for AIWW
- FIND is committed to evaluating and updating inventory of dredged material management sites
- Long range disposal plan for Nassau – Palm Beach Counties identifies 47 upland sites and 6 beach sites

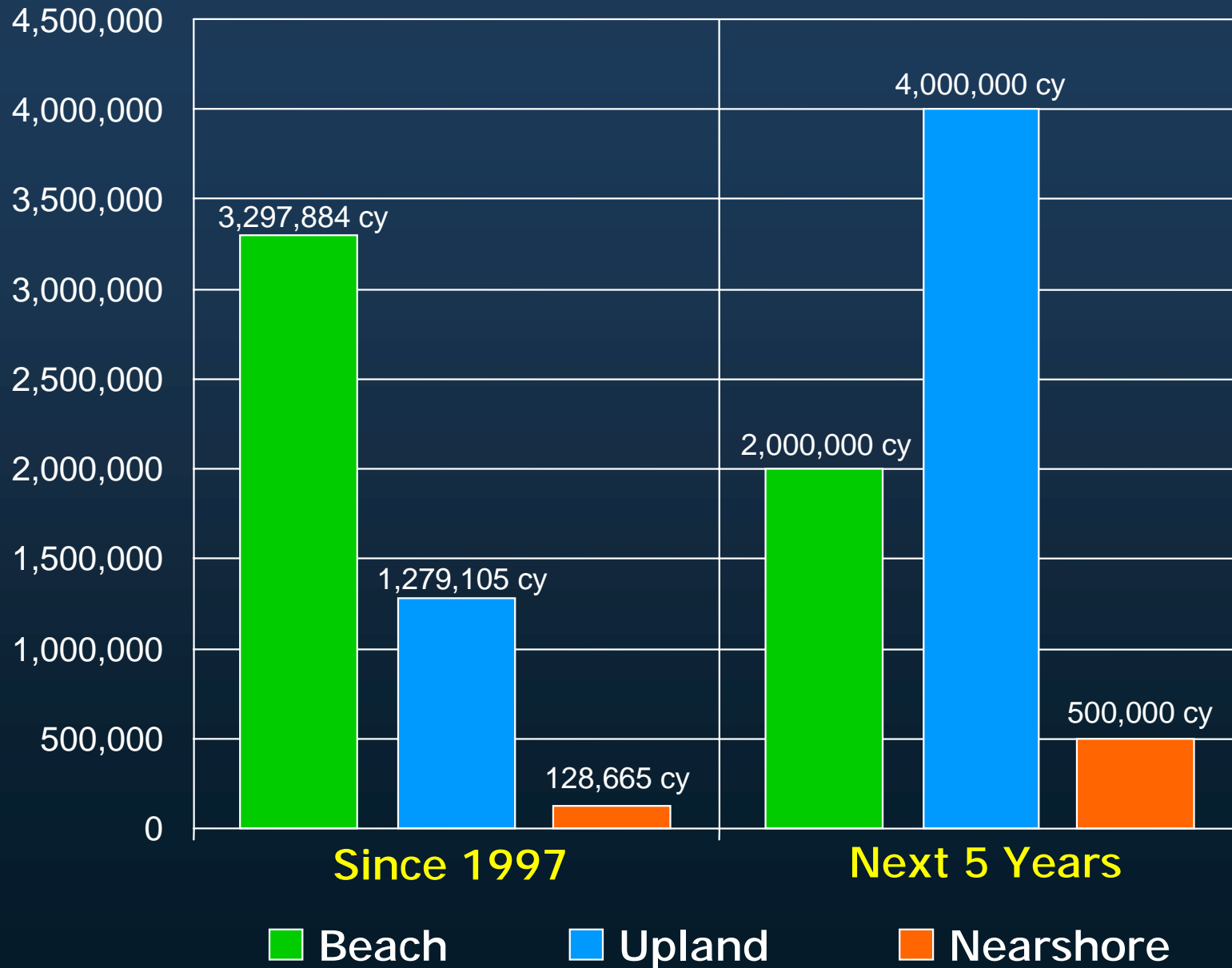
Placement

	Placement Location	#	cy
Since 1997	Beach	7	3,300,000 cy
	Nearshore	4	129,000 cy

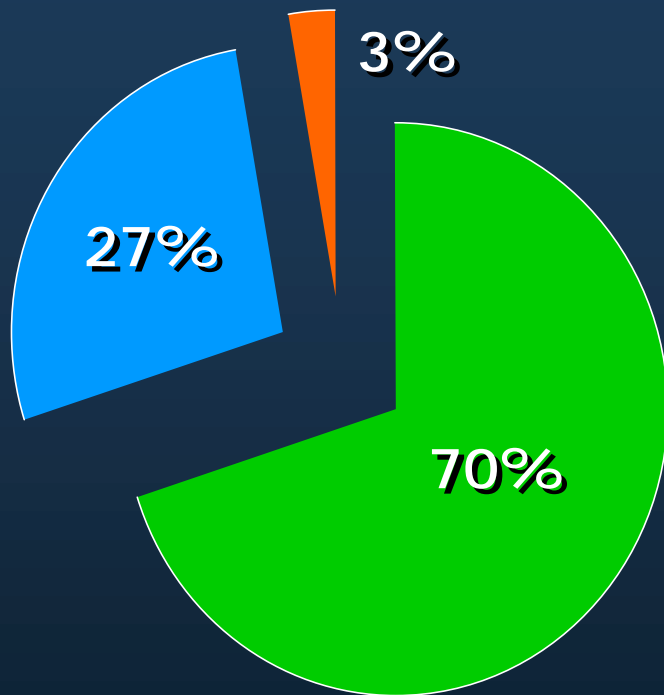
	Placement Location	#	cy
Next 5 years	Beach	8	2,500,000 cy
	Nearshore	8	500,000 cy

*** This translates into over 8 miles of direct downdrift beach renourishment over the 13 year period**

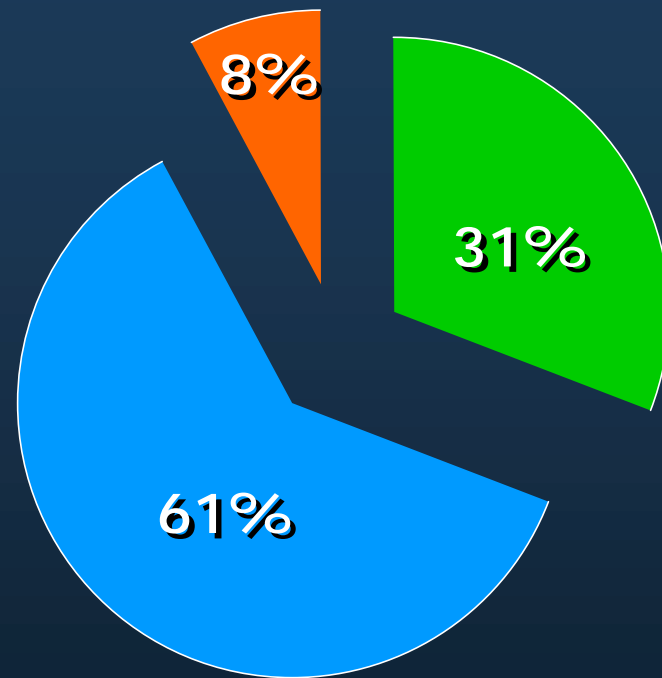
Placement Distribution



Percentage of Each Type of Placement



Since 1997



Next 5 Years

Beach

Upland

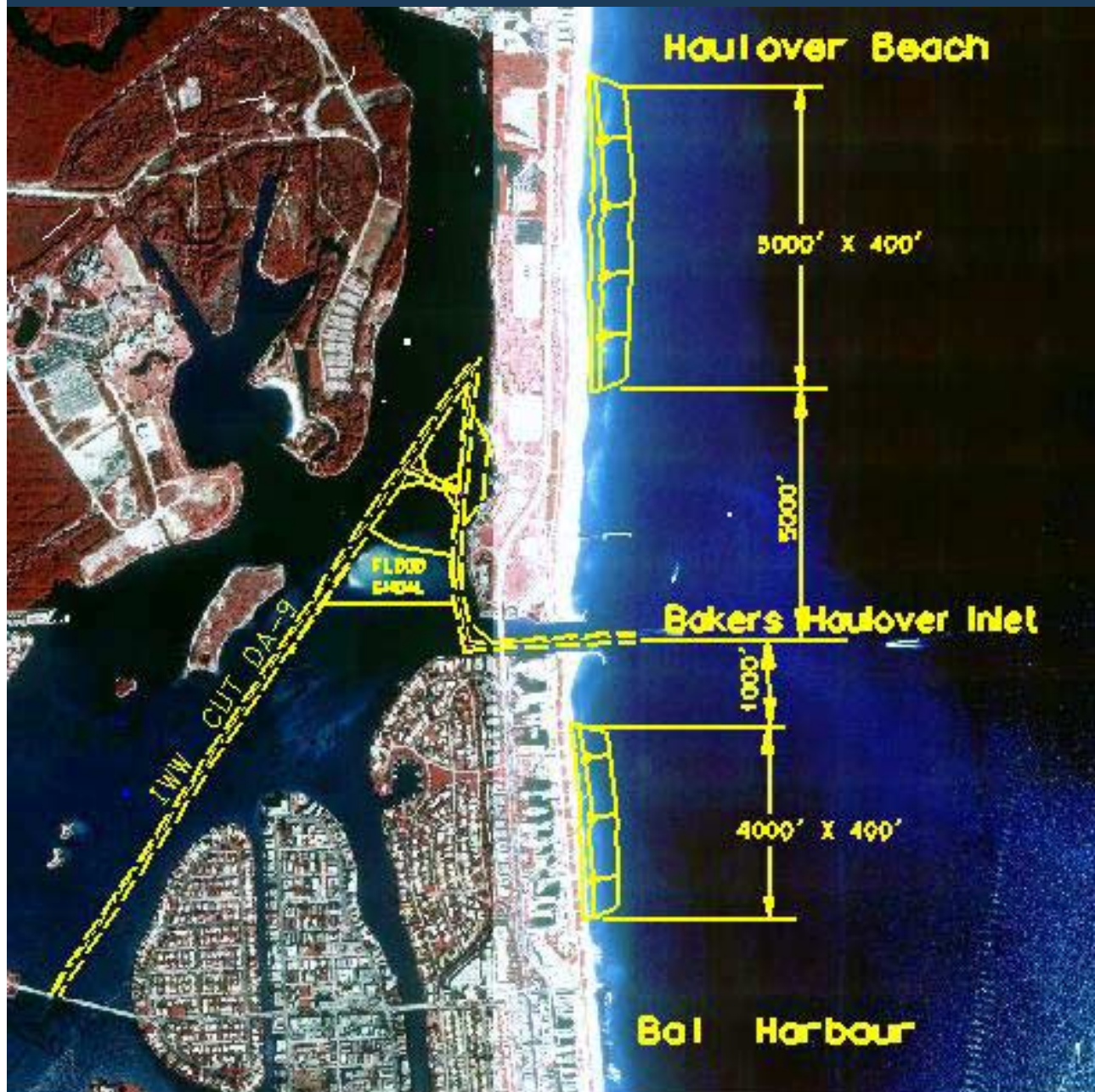
Nearshore

Recent projects that involved beach placement during maintenance dredging (MD) or offloading of upland containment areas (OL):

IWW Project	County	Type	Freq. (yrs)
Vic. Nassau Sound	Nassau	MD	3
Vic. St. Augustine Inlet	St. Johns	MD	5
Vic. Matanzas Inlet	St. Johns	MD	4
SJ-1	St. Johns	OL	12
Vic. Marineland	Flagler	MD	8
Vic. Jupiter Inlet	Palm Beach	MD	3
Vic. Bakers Haulover	Dade	MD	2

Recent projects that involved nearshore placement during maintenance dredging (MD):

IWW Project	County	Type	Freq. (yrs)
Vic. St. Augustine	St. Johns	MD	5
Vic. Ponce de Leon	Volusia	MD	3
Vic. Cross-roads	Martin	MD	4
Vic. Bakers Haulover	Dade	MD	2



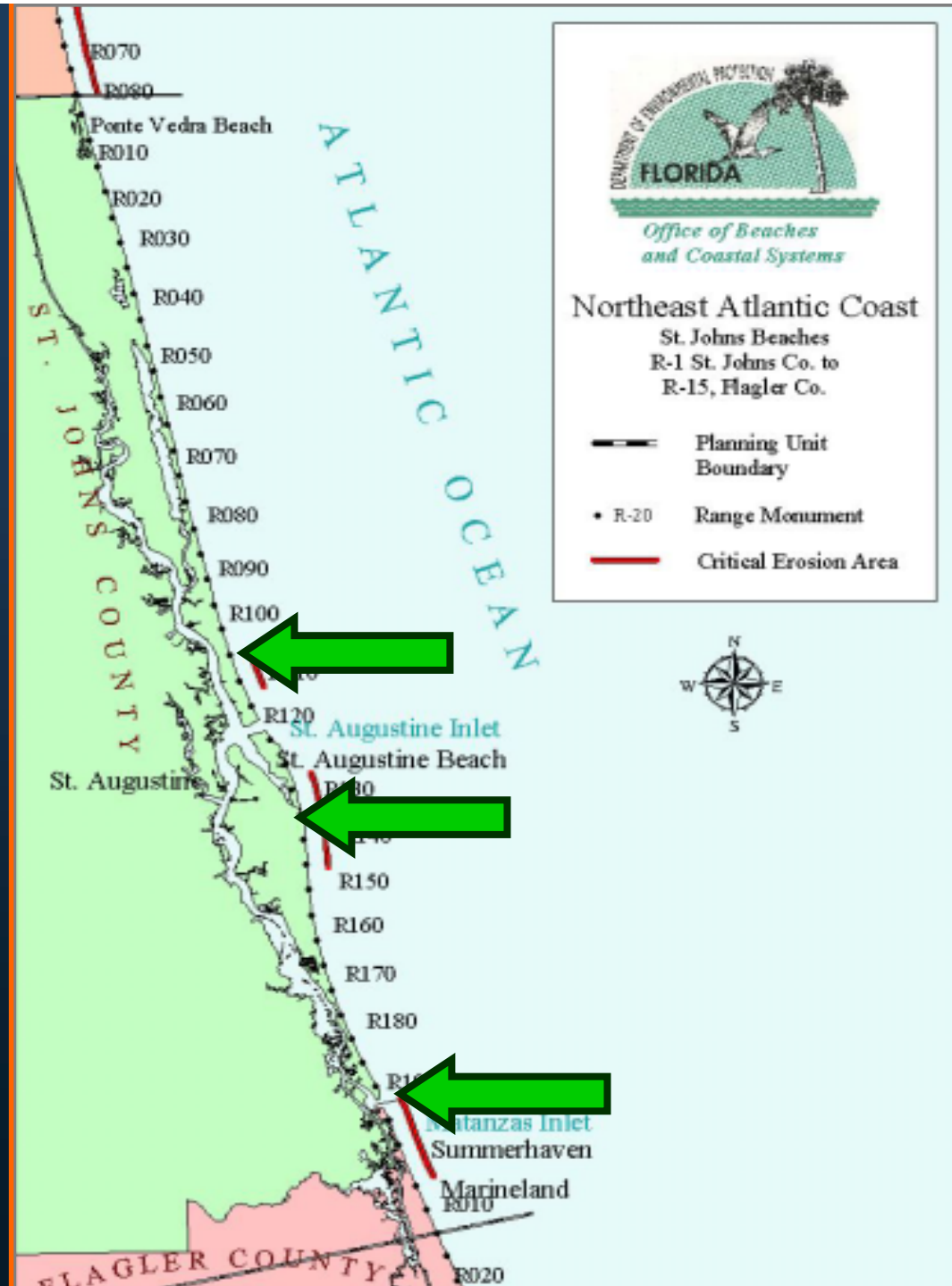
Bakers Haulover



Jupiter Inlet

Coordination

- The State of Florida has designated critically eroded beaches along Florida's coastline
- St. Johns County beaches routinely receive sand from the IWW dredging projects
- In 1999, the COE placed over 2 million cubic yards of sand on Summerhaven Beach in southern St. Johns County



A typical critically eroded beach which has low dunes and over-wash can occur frequently



Inside the SJ-1 confined containment
area during the offloading operation

Offloading point

Weirs



Offloading operation at the SJ-1 Intermodal Facility

Intracoastal Waterway

Pipeline to
the beach

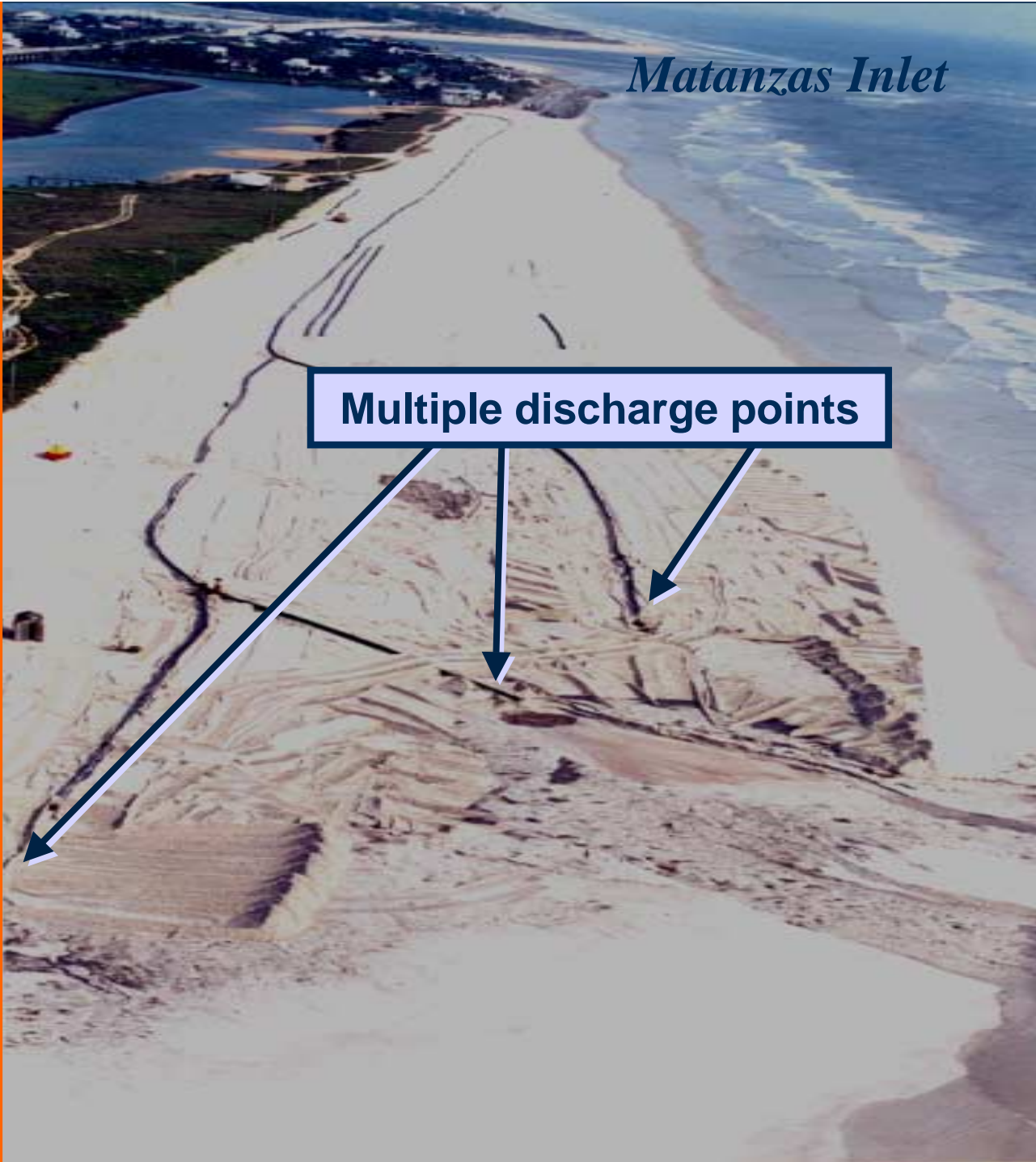
The dredge

Sheet pile
containment



Matanzas Inlet

Multiple discharge points



SummerHaven

- Berm width = 250 ft
- Berm elevation = 7 ft (N.G.V.D)
- Beach length = 14,200 ft
- Total volume of sand placed = 2,100,000 cy
- Project cost = \$10.8 M
- Project duration = 2 yrs
- The Florida Inland Navigation District is the local sponsor for the Atlantic Intracoastal Waterway



Challenges

Funding:

- A reduction in budget for the IWW has placed limits on the amount of work that can be accomplished
- Cost of beach placement can be more expensive than other alternatives

Environmental

- Environmental Coordination is a critical part of the project planning and execution
- Endangered species windows and requirements may prevent direct beach placement

Political

- Local municipalities or businesses not in support of beach placement



